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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,490	09/29/2005	Karsten Eichhorn	68897-012	4229

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HUSCH & EPPENBERGER, LLC
190 CARONDELET PLAZA
SUITE 600
ST. LOUIS, MO 63105-3441

EXAMINER	
LOVELL, LEAH S	
ART UNIT	PAPER NUMBER
2885	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Interview Summary	Application No.	Applicant(s)	
	10/551,490	EICHHORN ET AL.	
	Examiner	Art Unit	
	Leah S. Lovell	2885	

All participants (applicant, applicant's representative, PTO personnel):

(1) *Bob Haldiman, the Attorney*. (3)*James Lee, SPE*.

(2) *Leah S. Lovell, the Examiner*. (4)_____.

Date of Interview: *13 July 2007*.

Type: a)☒ Telephonic b)☐ Video Conference
c)☐ Personal [copy given to: 1)☐ applicant 2)☐ applicant's representative]

Exhibit shown or demonstration conducted: d)☐ Yes e)☐ No.
If Yes, brief description: _____.

Claim(s) discussed: *1*.

Identification of prior art discussed: *Natsume (US 6,619,825)*.

Agreement with respect to the claims f)☐ was reached. g)☐ was not reached. h)☒ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: *See Continuation Sheet*.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

_____
Examiner's signature, if required

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: The Attorney submitted proposed amendments and remarks (attached to office copy) in response to the Office Action dated 25 May 2007. There were no amendments to the only independent claim (claim 1); however, arguments against the previous rejection were submitted. The Examiner indicated that while she understands the position and intention of "a common carrier substrate," she is still standing by her interpretation of "common" as similar in structure. The Attorney also indicated Natsume lacks the teaching of "a steeper transition of light intensity formed in a light/dark boundary." The Examiner indicated that such limitation is found in a functional phrase, so while it does have patentable weight, it does not have to be directly disclosed in the reference but only the structural elements required to achieve the desired output be present to meet the limitation. The Examiner suggested to positively state "a steeper transistion of light intensity formed in a light/dark boundary" to remove it from its functional phrase. It was also suggested that "common" be replaced with another term to indicate a single, continuous carrier substrate. The Examiner and Attorney agreed that these changes would overcome Natsume but a further search would be required.

JONG-SUK (JAMES) LEE
SUPERVISORY PATENT EXAMINER

Husch & Eppenberger, LLC
Attorneys and Counselors at Law

The Plaza in Clayton Office Tower
190 Carondelet Plaza, Suite 600
St. Louis, MO 63105
Phone: 314.480.1500
Fax: 314.480.1505

Facsimile

TO: LEAH S. LOVELL

FAX NO.: 571-273-2719

FROM: BOB HALDIMAN

DATE: July 10, 2007

NUMBER OF PAGES INCLUDING THIS COVER SHEET: 7

MESSAGE:

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Karsten Eichhorn	Group No.: 2885
Serial No.: 10/551,490	Atty. Docket No.: 68897-012
Filed: 09/29/2005	Confirmation No.: 4229
For: Light for Motor Vehicles	Examiner: LOVELL, Leah S.

VIA FACSIMILE TO EXAMINER LEAH S. LOVELL
571-273-2719
MAIL STOP AMENDMENT
Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PROPOSED
AMENDMENT

HONORABLE SIR:

Responsive to the official communication of May 25, 2007, Applicant submits the following Amendments and Remarks.

It is not believed that extensions of time are required beyond those, which may otherwise be provided for in documents accompanying this Amendment. However, in the event that additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned for under 37 C.F.R. § 1.136(a), and any fees required therefore are hereby authorized to be charged to our Deposit Account 08-3460.

Amendments to the Claims:

Please amend the claims as set forth below.

1. (Previously Presented) Lighting unit for vehicles comprising:

a plurality of semiconductor light sources distributed in a grid, the grid of semiconductor light sources being divided into at least two grid segments, the grid segments being each activatable independently of each other;

an optical element in the beam path of a light beam emitted by the semiconductor light sources,

the semiconductor light sources (3) being arranged on a common carrier substrate (5), with a chip cover (6) transparent to light in the direction of light propagation,

the chip cover (6) is filled with a light-scattering light-converting auxiliary material (8); and

a shading device (9) is provided, in the boundary region between the activated grid segment (10) and the unactivated grid segment (11), such that a steeper transition of light intensity is formed at a light/dark boundary.

2. (Previously Presented) Lighting unit according to claim 1, wherein the shading device (9) is arranged in the boundary region between the first grid segment (10) and the second grid segment (11).

3. (Previously Presented) Lighting unit according to claim 1 wherein the shading device (9) is designed as a partition which separates the two grid segments (10, 11) from each other and which projects from the carrier substrate (5) in the direction of light propagation.

4. (Previously Presented) Lighting unit according to claim 3, wherein the partition (9) extends perpendicularly to the carrier substrate (5) and in that the free end of the partition (9) is arranged at a distance from and/or tapering towards a front side (15) of the chip cover (6).

5. (Previously Presented) Lighting unit according to any of claims 1 wherein the semiconductor light sources (3) of the grid segments (10, 11) are designed as a plurality of chips emitting UV radiation and/or emitting blue light, and arranged in the form of a semiconductor light source array.

6. (Previously Presented) Lighting unit according to claim 5, wherein the semiconductor light source array (4) is arranged in a focal plane of the optical element (2, 16).

7. (Previously Presented) Lighting unit according to any of claims 1 wherein the partition (9) has a longitudinal extent in the direction of the path of the carrier substrate (5) corresponding to the formation of a light/dark boundary.

8. (Previously Presented) Lighting unit according to any of claims 1 wherein the auxiliary material (8) is formed as a light converter, in particular by a luminescent material.

9. (Previously Presented) Lighting unit according to any of claims 1 wherein the carrier substrate (5) is of flat or curved construction.

10. (Previously Presented) Lighting unit according to any of claims 1 wherein on the front side (15) of the chip cover (6) facing away from the carrier substrate (5) is arranged an optical element (16) resting directly on the chip cover (6).

11. (New) The lighting unit of claim 1 wherein said common carrier substrate is substantially on a single plane.

12. (New) The lighting unit of claim 1 wherein said steeper transition of light intensity is formed in a light/dark boundary between said first grid segment and said second grid segment.

13. (New) The lighting unit of claim 1 wherein said shading device is completely surrounded by said chip cover and contiguous with said chip cover.

14. (New) The lighting unit of claim 1 wherein said chip cover is a planar cast body adjoining said common carrier substrate.

15. (New) The lighting unit of claim 1 wherein said shading device is fixedly attached to said common carrier substrate.

16. (New) The lighting unit of claim 1 wherein said shading device is between said common carrier substrate and any optical element relative to a direction of light propagation.

17. (New) The lighting unit of claim 1 wherein said optical element abuts said chip cover, said chip cover abuts said light sources and said common carrier substrates.

REMARKS

35 USC § 102

Presently pending claims 1-4, 7 and 9 stand rejected as anticipated by Natsume (U.S. 6,619,825). The Natsume reference does not anticipate the presently pending claims for at least the following reasons.

The Natsume device does not have a "common carrier substrate" as recited in Claim 1. The plurality of LEDs in the Natsume reference are mounted on substrate 26. The anticipation argument of the office action relies on two separate grids 12A and 12B anticipating the first limitation of the independent claims. As such, these two separate grids must be seen to have two separate substrates 26. Accordingly, the Natsume reference cannot anticipate the structural recitation of "a common carrier substrate" as claimed.

Next, the "shielding panel 18" of the Natsume reference (*see* column 3, line 32) is not disclosed as creating a "steeper transition of light intensity formed in a light/dark boundary" as claimed. Moreover, it cannot anticipate the "shading device" because it is not "at a boundary region between an activated grid segment and an unactivated grid segment" as claimed. Rather, the shielding device would only shield the outer periphery of the entire unit, if that.

Next, the translucent panel 22 and condenser lenses 34 and condenser lens board 36 do not include a "light scattering, light converting auxiliary material" as claimed. This material in the pending application "causes white light to be emitted from a front side of the chip cover in the direction of light propagation. The auxiliary material is evenly distributed in the cast body." *See* page 5, paragraph 20. The elements cited in the Natsume reference are not disclosed as having any such integral material and are simply lenses for bending the light, not scattering or converting it.

The Natsume patent is also the primary reference for the 103 rejections of claims 5, 6, 8 and 10. Because the Natsume patent fails to teach the above elements recited in the claims, it cannot support a 103 rejection of them.

New claims 11 through 17 recite further patentable distinctions over the prior art.

Respectfully submitted,

Robert C. Haldiman, Reg. 45, 437
Husch & Eppenberger, LLC
190 Carondelet Plaza, Suite 600
St. Louis, MO 63105
Telephone: (314) 180-1500
Facsimile: (314) 480-1505